

VETUKHNOVSKIY, Z.B.; MALOVITSKIY, V.S.

Economic effectiveness of using new paint materials in the
furniture industry. Lakokras. mat. i ikh. prim. no.4:57-60
'61. (MIRA 16:7)

(Furniture industry) (Paint materials)

MALOVITSKAYA, L. M.

Dissertation defended at the Zoological Institute for the academic degree of Candidate of Biological Sciences:

"Biology of the Diaptomides Eudiaptomus gracilis (Sars.) and E. graciloides (Zill.), Coreopoda (Calanoida) of the Rybinskiy Reservoir."

Vestnik Akad Nauk No. 4, 1963, pp. 119-145

MALOVITSKAYA, L.M.; SOROKIN, Yu.I.

Bacterial nutrition of some Diaptomus species (Copepoda, Calanoida).
Dokl. AN SSSR 136 no.4:948:950 P '61. (MIRA 14:1)

1. Institut biologii vodokhranilishch Akademii nauk SSSR.
Predstavleno akademikom I.I. Shmal'gauzenom.
(Copepoda) (Bacteria)

MAIOVITSKAYA, L.M.

Distribution of diatomids (Copepoda, Calanoida) in Rybinsk Reservoir.
Zool. zhur. 40 no.3:457-461 Mr '61. (MIRA 14:3)

1. Reservoir Biology Institute, Academy of Sciences of the U.S.S.R.
(Post Office Borok, Nekouzsk District, Yaroslavl Region)
(Rybinsk Reservoir-Copepoda)

MALOVITSKAYA, L.M.

Lethal values of the active reaction of the medium (pH) and oxygen concentration for Eudiaptomus gracilis Sars and E. graciloides (Lill.) (Copepoda, Calanoida). Biul.Inst.biol.vodokhran. no.11:13-16 '61. (MIRA 15:8)

1. Institut biologii vodokhranilishch AN SSSR.
(RYBINSK RESERVOIR--CALANOIDA) (HYDROGEN-ION CONCENTRATION)
(OXYGEN--PHYSIOLOGICAL EFFECT)

MALOVITSKAYA, I.M.; SOROKIN, Yu.I.

Experimental investigation of the feeding of Diaptomus (Crustacea,
Copepoda) by use of C14. Trudy Inst.biol.vodokhran. no.4:262-272
'61. (MIRA 14:10)

(Copepoda)

PALEOGEOMORPHOLOGY 14.3
Translation from: Referativnyy zhurnal, Geologiya, 1957, Nr 1,
p 62 (USSR) 15-57-1-389

AUTHOR: Malovirskiy, Ya. P.

TITLE: Texture Characteristics of Sedimentary Rocks, Their
Paleogeographical Significance and the Method of
Studying Them, as Shown on a Sample Investigation of
the Middle and Upper Devonian Deposits in the South-
western Tuvinskiy Flexure (Teksturnyye priznaki
osadochnykh gornykh porod, ikh paleogeograficheskoye
znachenie i metody izucheniya na primere issledovaniya
otlozheniy srednego i verkhnego devona yugo-zapadnoy
chasti Tuvinskogo progiba)

PERIODICAL: V sb: 10-ya nauch. konferentsiya, 1955, (Nauchn. stud.
o-vo. Mosk. nef. in-t). Leningrad, Gostoptekhizdat,
1956, pp 5-21

ABSTRACT: Bibliographic entry
Card 1/1

MALOVICHKO, Ye.Ye.; RUPASOVA, T.N.

Data on the role of living substance in healing of burns; preliminary communication. Arkh.anat.gist.i embr. 30 no.3:22-27 My-Je '53. (MIRA 6:6)

1. Iz kafedry gistologii (zav. -prof. Ye.Ye.Malovichko) Izhevskogo meditsinskogo instituta.

(BURNS, experimental,

healing, form. of new cells from decomposition prod. of neutrophils)

(CELLS,

form. from decomposition prod. of neutrophils in healing of exper. burns)

MALOVICHKO, Ye.Ye., prof.

Materials on the development of the thyroid gland of man in embryo-
genesis. Trudy Izhev.gos.med.inst. 13:501-510 '51. (MIRA 13:2)
(THYROID GLAND) (EMBRYOLOGY, HUMAN)

MALOVICHKO, Ye. Ye.

Malovichko, Ye. Ye. - "On the problem of the cell differentiation of the epiphysis in the embryological development of man", Trudy Medinstituta (Izh v. gos. med. in-t), Vol. VI, 1948, p. 125-26.

SO: U4110, 17 July 53, (Letopis 'Zhurnal 'nykh Statey, No. 17, 1949).

MALOVICHKO, V.I.; PONOMARENKO, A.V.

Standardizing the expenditure of flexible, rubber-hose, shielded
cable in the mining industry. Met. i gornorud. prom. no.6:62-63
N-D '64. (MIRA 18:3)

MALOVICHKO, V.I., gornyy inzh.; PONOMARENKO, A.V., gornyy inzh.;
SHULESHKO, A.V., gornyy inzh.

Ways of increasing the durability of boring steel and determining
standards for its use. Gor.zhur. no.4:48-51. Ap '64. (MIRA 17:4)

1. Nauchno-issledovatel'skiy gornorudnyy Institut, Krivoy Rog.

TRESHCHENSKIY, A.I.; NIKOLAYEV, Yu.A.; UMANSKIY, M.A.; BELAN, S.N.;
LIAVINETS, A.S.; MALOVICHKO, A.Ya.; PIVCHIK, D.T.

Effect of andaxin on healthy people. Vrach.delo no.11:149-150
N '62. (MIRA 16:2)

1. Kafedra torakal'noy khirurgii i anesteziologii (zav. - prof.
N.M. Amosov) Kiyevskogo instituta usovershenstvovaniya vrachey.
(MEPROBAMATE)

DEDKOV, I.P. (Kiyev, Spusk Stepana Razina, d.7); MALOVICHKO, A.Ya.;
CHERENKOVA, N.D.

Anesthesia and safety measures in one-stage bilateral pneumectomy.
Nov. khir. arkh. no.2:75-81 Mr-Apr '60. (MIRA 14:11)

1. Kafedra torakal'noy khirurgii (zav. -- prof. N.M.Amosov)
Kiyevskogo instituta usovershenstvovaniya vrachev.
(LUNGS--SURGERY)

L 46292--66

ACC NR: AT6020751

two-dimensional and the body is an infinite trihedral prism. In the equation, f is the gravitational constant, and σ is the anomalous density. Assuming the side of the triangle is equal to 1 km and $\sigma=0.2 \text{ g/cm}^3$, the solution of the integral equation gave $V_z = 2 \text{ mgal}$ for a point located at the triangle apex. Because many bodies of simple shapes may be replaced by simple mass distributions whose gravitational characteristics are similar to those of the initial bodies, the application of the inverse method often leads to a unique determination of particular points, which, in general, cannot be obtained without using additional conditions. S. V. Shalayev (1962) in his investigation of the complex field stated that often a system of particular points can be replaced by a new system which is more amenable to various manipulations. The study shows that 1) the mass centers of bodies of limited horizontal and vertical dimensions are the particular points obtained from the solution of equations using the reverse method; 2) irregular body corner points are the particular points when the body represents a set of layers of infinite dimensions; 3) the study of particular points distributed over the contact surface as knots or polygon corners requires additional knowledge of body characteristics because these points cannot be taken as a source of gravitational attraction. Orig. art. has: 8 formulas and 4 figures. [14]

SUB CODE: 08/

SUBM DATE: none/

ORIG REF: 011/ ATD PRESS: 5055

ms
Card 2/2

L 46292-66 EWP(m)/EWP(1)/T TJP(c) GW/JT

ACC NR: AT6020751

SOURCE CODE: UR/2552/65/000/046/0149/0155

AUTHOR: Malovichko, A. K.; Chadayev, M. S.

ORG: none

TITLE: Particular potential points and their significance in the interpretation of gravitational anomalies

SOURCE: Moscow. Vsesoyuznyy nauchno-issledovatel'skiy institut geofizicheskikh metodov razvedki. Prikladnaya geofizika, no. 46, 1965, 149-155

TOPIC TAGS: gravitation field, gravitation effect, magnetic anomaly

ABSTRACT: The relationship between particular points and the shapes of anomalous bodies was investigated on the basis of a direct method developed by B. A. Andreyev (1949, 1962) and an inverse method using the vertical components of the force of attraction or the magnetic-field intensity at some external points and their characteristic changes when the function of the components (V_z) is extended into a physical body. The change in the function

$$V_z = 2 \cdot 2f \sigma \int_{z_0}^{z_1} \operatorname{arctg} \frac{z}{\xi} d\xi,$$

when it is extended into a physical body, was analyzed assuming the function field is

Card 1/2

MALOVICHKO, A.K.; SHIKHOV, S.A.; SHILOVA, A.A.

Characteristics of the gravity anomalous field in the area of
the Kama-Kinel' Depression based on prospecting data. Neftegaz.
geol. i geofiz. no.7:20-22 '65. (MIRA 18:3)

1. Kontora "Perm'neftegeofizika" i Permskiy gosudarstvennyy
universitet.

MALOVICHKO, A.K., prof. .

M.S. Molodenskii's studies on problems in the theory of the
external gravitational field and the figure of the earth's
physical surface. Uch. zap. Perm. gos. un. no.122:98-106 '64.
(MIRA 19:1)

MALOVICHKO, A.K., prof.; TARUNINA, O.L.

Interpretation of gravity and magnetic anomalies using the
trial-and-error method. Uch. zap. Perm. gos. un. no. 122:
40-48 '64. (MIRA 19:1)

MALOVICHKO, A.K., prof.

Evaluation of the accuracy of gravimetric control points and
general principles of developing networks of control points.
Uch. zap. Perm. gos. un. no.122:3-9 '64. (MIRA 19:1)

MALOVICHKO, A.K.; KOPYTOV, A.S.

Two-dimensional transparent graph paper for calculating the effect
of the gorge-scarp shape of the relief. Razved. i prom. geofiz. no.
51:76-79 '64. (MIRA 17:11)

MALOVICHKO, A.K.; GERSHANOK, V.A.

Calculation of horizontal derivatives according to the results
of profile observations. Razved. i prom. geofiz. no. 48:78-92 '63
(MIRA 18:1)

MALOVICHKO, A.K.

Distribution of the closure of a gravimetric run following
a parabolic law. Geofiz.razv. no.14:92-96 '63. (MIRA 17:3)

Sources of error ...

S/169/62/000/005/028/093
D228/D307

tinuous statistical analysis, leads to the fact that the sought local anomalies are not distinguishable with the desired certainty; the survey as a whole also loses its exploration and prospecting potentialities. [Abstracter's note: Complete translation.]

4

Card 3/3

3/169/62/000/005/028/093
D228/D307

Sources of error ...

topography's influence (m_6); and the so-called effective survey-grid error (m_7), which depends on the anomaly field's character and on the survey grid's structure. The following conclusions are drawn: 1) The tolerance effective at the present time in respect of the precision of determining the reference points must be raised -- to wit, it should be assumed that $m_{rf} = 0.5$ m (m_{rf} is the measurement precision at a reference point); $m = \sqrt{\sum_i m_i^2}$, the total error

in determining anomalies at an ordinary point. 2) For tying in the traverses it suffices to make observations at reference points with the usual precision of ordinary measurements. 3) The maximum amplitude of the zero-point's non-linear creep (E) should not exceed the magnitude of the isoanomaly section (Δ) on the recording chart, i.e. $E \leq \Delta$. The necessity of introducing the official tolerance for the shift of the zero-point from the average value is noted. 4) The presence in the survey results of points with grossly erroneous values for the anomalies, which remain unexposed as a result of con-

Card 2/3

28913
S/169/62/000/005/028/093
D228/D307

9.6160

AUTHOR:

Malovichko, A. K.

TITLE:

Sources of error, official tolerances, and estimation of the accuracy of gravity determinations

PERIODICAL:

Referativnyy zhurnal, Geofizika, no. 5, 1962, 31, abstract 5A244 (Uch. zap. Permsk. un-t, 18, no. 4, 1961, 3-18)

TEXT: The following are considered to be the main sources of error in gravity measurements: The ordinary measurement error, caused by mistakes on the determinations at reference points (m_1); the pure measurement error at ordinary points (m_2), related to instrumental mistakes; the error in tying a traverse to the reference points (m_3); the error in determining the Bouguer correction (m_4); the error in correcting for the zero-point shift (m_5), caused by non-linear creep; the error in determining the correction for the

Card 1/3

MALOVICHKO, A.K.; TARUNINA, O.L.

Method of detecting anomalous fields commensurable with observational
errors. Geofiz.razved. no.4:44-48 '61. (MIRA 14:7)
(Gravity prospecting)

On the service...

S/035/62/000/005/089/098
A055/A101.

the error in the determination of the gravimetric point coordinates and the influence of the error in the gravimeter scale division. Reviewer).

P. Shokin

[Abstracter's note: Complete translation]

Card 2/2

S/035/62/000/005/089/098
A055/A101

AUTHOR: Malovichko, A. K:

TITLE: On the service precision-tolerances in detailed gravimetric surveying

PERIODICAL: Referativnyy zhurnal, Astronomiya i Geodeziya, no. 5, 1962, 37 - 38,
abstract 5G203 ("Uch. zap. Permsk. un-t", 1960, 15, no. 1, 57 - 62)

TEXT: Analyzing the requirements set by the technical instructions regarding gravimetric prospecting (1950 - 1952), the author suggests the utilization of service tolerances for the basic errors determining the total value of the RMS error m of the Bouguer anomaly. The following system of permissible RMS errors is recommended in measurements with gravimeters: for the determination of the reference point - $m_1 = 0.5$ m; for the observation during the run - $m_2 = 0.4$ m; for the bridging of the run to the reference point - $m_3 = 0.4$ m; for the determination of the Bouguer correction - $m_4 = 0.4$ m; for the determination of the correction for the zero-point drift - $m_5 = 0.4$ m; for the determination of the correction for the influence of the relief - $m_6 = 0.4$ m; for the interpolation of anomalies - $m_7 = 0.4$ m. (The author does not take into account the influence of

Card 1/2

5/056/00/000/000/001/000
B012/B05;

Case 4:11-cv-00001-UNA Document 1-1 Filed 07/25/11 Page 1 of 1

22/05/2014

Card 5/6

[illegible][illegible]

Card 3/6

Card 3/6

MALOVICHKO, A.K.

Estimating the accuracy of gravimetric observations. Razved. i
prom.geofiz. no.32:52-56 '59. (MIRA 13:4)
(Gravity) (Prospecting--Geophysical methods)

3,9110

28401
E/169/61/506/507/533/104
A006/A101

AUTHOR: Malovichko, A.K.

TITLE: On the reduction of three-dimensional anomalous fields to two-dimensional ones when solving the problem according to gravitational and magnetic observations

PERIODICAL: Referativnyy zhurnal. Geofizika, no. 7, 1961, 24, abstract 7A207 ("Uch. zap. Permsk. un-t", 1959, v. 11, no. 1, 3 - 8)

TEXT: To simplify interpretation, three-dimensional anomalies may be replaced by two-dimensional ones. The author analyzes methods of replacing the fields to determine the depth of the anomalous body and the contact surface from gravimetrical data and to calculate the horizontal component of the magnetic field from the given values of the vertical component. The reduction is based on the fact that superposing of the field on itself one or several times does not change the depth of the body center. The reduction to a two-dimensional problem is performed by several superpositions of the field upon itself with a certain shift of its center, in order to obtain a summary field of sufficient extension. Fields of simplest bodies are practically used; corrections for their effect may be analytically introduced. X

Card 1/1

[Abstracter's note: Complete translation] M. Artem'yev

MALOVICHKO, A.K.

Gravimetric surveying with anomaly adjustments along the routes.
Prikl.geofiz. no.21:56-73 '58. (MIRA 12:1)
(Prospecting--Geophysical methods) (Gravity)

On the Measuring of Curves on Maps

SOV/6-58-8-11/15

1. Map--Measurement
2. Mathematics--Applications

Card 2/2

AUTHOR: Malovichko, A. K., Candidate of
Physico-Mathematical Sciences SOV/6-55-8-11/15

TITLE: On the Measuring of Curves on Maps (Po povodu izmereniya na
kartakh krivyykh liniy)

PERIODICAL: Geodeziya i kartografiya, 1958, Nr 8, pp. 59-61 (USSR)

ABSTRACT: In an earlier work by the same author (Ref 1) formulae for the
computation of the length of curves of any shape are derived
according to measuring results on the map: formulae (1) and (2).
D. M. Kudritskiy, N. M. Volkov, G. I. Znamenshchikov and
N. N. Parkhomenko (Refs 2, 3 and 4) showed that these formulae
are too complicated and not suited for major computations. A
more useful formula (3) is derived, the application of which is
demonstrated on the basis of an example in accordance with the
data obtained by Yu. M. Shokal'skiy. - It is shown that
measurements carried out of lengths of considerably curved lines
should be on photostats which are twice or three times enlarged.
In this way measuring errors can be reduced to a maximum of
1-2%. There are 1 table and 4 references, which are Soviet.

Card 1/2

6-58-2-3/21
On the Problem of the Possibility of Determining the Geoid Only on the Basis
of the Application of Geodetic and Gravimetric Data

they are not important and that the influence of distortion due to compensation may be neglected in the case of even most precise works. However, in the topmost zones of the earth's crust there is in reality no accumulation of anomalous masses which could be equated with the spheres. Thus, such a computation is intentionally exaggerated. The application of mean anomaly values makes it possible to simplify the reduction by means of an analytic continuation of the anomalies. There are 1 figure, and 3 references, which are Soviet.

1. Geodesics 2. Mathematics

Card 2/2

AUTHOR: Malovichko, A. K. 6-58-2-3/21
Candidate of Physical and Mathematical
Sciences

TITLE: On the Problem of the Possibility of Determining the Geoid
Only on the Basis of the Application of Geodetic and Gravi-
metric Data (K voprosu o vozmozhnosti opredeleniya figury
geoida na osnove ispol'zovaniya odnikh lish' geodezicheskikh
i gravimetricheskikh dannykh)

PERIODICAL: Geodeziya i Kartografiya, 1958, Nr 2, pp. 11 - 13 (USSR)

ABSTRACT: V. A. Kuzivanov investigated the solution of the present
problem given by the author in Reference 1 and arrived at
a directly opposite conclusion (Reference 2). In this paper
a comment is given. It was suggested in Reference 1 to com-
pensate the small anomalous fields of local importance. It
is assumed that anomalous fields are observed on the earth's
surface. They can be regarded as homogeneous spheres located
at different depths. Then the distortions due to a compensa-
tion of the anomalous fields are computed. It is shown that

Card 1/2

MALOVICHKO, A.K.

Determining the depth of a body from gravitation and
magnetic anomalies. Izvest. i okh. nedr 23 no. 5:57-58 My '57.
(ISSN 10:8)

1. Molotovskiy Gos. universitet.
(Moscow)

Malovichko, A.K.
MALOVICHKO, A.K.

Significance of the anomalous gravity gradient in gravitational
explorations. Prikl. geofiz. no.17:162-169 '57. (MIRA 11:2)
(Gravity) (Prospecting--Geophysical methods)

MALOVICHKO, A. K.

Translation from: Referativnyy zhurnal, Geologiya, 1957, Nr 1, 15-57-1-976
p 155 (USSR)

AUTHOR: Malovichko, A. K.

TITLE: Density and Form of the Grid used in the Area
Gravimetric Survey (O gustote i forme seti pri
ploshchadnoy s"yemke s gravimetrami)

PERIODICAL: V sb: Razvedochnaya i promysl. geofizika, Nr 15,
Moscow, Gostoptekhizdat, 1956, pp 37-40

ABSTRACT: Bibliographic entry

Card 1/1

MALOVICHKO, A.K.

MALOVICHKO, A.K.

~~Interpretations of gravimetric observations in connection with~~
prospecting possible oil- and gas-bearing structures. Prikl.
geofiz. no.13:63-79 '55. (MLRA 8:10)
(Gravity) (Prospecting--Geophysical methods)

USSR/Geophysics - Gravimetry

May/Jun 53

MALOVICHKO, A.K.

"The Solution of the Inverse Gravimetric Problem," A. K. Malovichko, Novosibirsk Inst of
Engineers of Geodesy, Aerial ~~Photography~~ *Surveying* and Cartography

Iz Ak Nauk SSSR, Ser Geofiz, No 3, pp 228-231

Expounds method of successive approximations for solving the inverse gravimetric problem;
~~this~~ *this* method is based on the reduction of gravity anomalies to the linearized case. Gives
example illustrating the technique of computation. States that the procedure expands the
possibility of direct methods for the interpretation of anomalies.

T 5

MALOVICHKO, A. K.

USSR/Geophysics - Gravitational Field Jan/Feb 52

"Method of Analytic Extension of Gravitational Anomalies," A. K. Malovichko, Novosibirsk Inst of Engineers in Geodesy, Aerial Photography and Cartography

"Iz Ak Nauk SSSR, Ser Geofiz" No 1, pp 35-39

Discusses soln of the problem of analytic extension of a 3-dimensional anomalous field into the region of the lower half space. Obtains the soln by means of a Bessel function of zero order. Presents examples of computational work. Submitted 18 Jun 51.

205T40

MALOVICHKO, A. K.

180T64

USSR/Geophysics - Gravitational Anomalies Mar/Apr 51

"Problem of Averaging Anomalous Fields," A. K. Malovichko, Novosibirsk Inst of Engineers of Geodesy, Aerial Photography and Mapping

"Iz Ak Nauk, Ser Geog i Geofiz" No 2, pp 40-42

Suggests, for averaging of anomalous fields, transparent sheet divided into squares for computation.
Submitted by Acad O. Yu. Shmidt.

FDD

180T64

MALOVICHKO, A. K.

Malovichko, A. K. - "On the problem of the suitability for use of projections based on equal intervals", Sbornik nauch.-tekhn. i priklad. statey po geodezii, kartografii, topografii, aerofotogrammetrii i gravimetrii, Issue 21, 1948, p. 94-97.

SO: U-4110, 17 July 53, (Letopis 'Zhurnal 'nykh Statey, No. 19, 1949).

MALOVICHKO, A.K.

Malovichko, A. K. "On determining the contact surface by gravitational abnormalities," Prkil. geofizika, Issue 5, 1948, p. 77-97

SO: U-3264, 10 April 1953, (Letopis 'Zhurnal 'nykh Statey, No.3, 1949)

MALOVICHKO, A.K.

Malovichko, A.K. "On the relative series of equinipolar and equidistant node projections",
Trudy Novosib. in-ta inzhenerov i elektrozil, aerofotos", emki i kartogr fil, Vol. 11, 1967,
p. 13-20

SI: U-3042, 11 March 53, (Le opis i nykh S atoty No. 9, 1243)

MALOVICHKO, A.

"Role of Colloidal-Disperse Minerals in the Processes of Ground Freezing,"

SO: Dok. AN, 47, No. 2, 1945;

"X-Ray Studies of Processes of Ground Freezing,"

SO: Dok. AN, 47, No. 4, 1945. Inst. Permafrost Studies im. V. A. Obruchev, Dept. Geol-Geog. Sci., Acad Sci., -1945-.

MALOVICHKO, A. K.

"Determination of Bedding of a Disturbing Mass from Horizontal Gradients of Gravity,"

SO: Dok. AN, 33, No. 6, 1941. Shternberg Astronomical Inst. St. Univ; Moscow.
c1941-.

DURICID, I.; MILIC, M.; MALOVICEVA, M.

Effect of cortisone on swelling of gelatin; blood platelets and serum viscosity. Bull. Acad. serbe sc., classe med. 15 no.3:7-10 1956.

1. Arbeit aus dem Institute for medizinische Untersuchungen der Serbischen Akademie des Wissenschaften.

(CORTISONE, effects,

on blood platelets & serum viscosity, relation to gelatin colloidal dispersion (Ger))

(BLOOD PLATELETS, effect of drugs on,

cortisone, relation of response to gelatin colloidal dispersion (Ger))

(GELATIN,

colloidal dispersion, eff. of cortisone, relation to blood platelets & serum viscosity responses (Ger))

(BLOOD,

viscosity, eff. of cortisone, relation to gelatin colloidal dispersion (Ger))

DJURICIC, I.; MILIC, M.; MALOVICEVA, M.

Effect of cortisone on gelatin swelling and viscosity of the blood serum. Glas srpske akad. nauka, odelj med. 211 no.7:233-237 1953.

1. Primljeno na VIII skupu Odeljenja med. nauka od 28 V 1953 god.
(BLOOD SERUM
viscosity, eff. of cortisone)
(CORTISONE, eff.
on gelatin swelling & blood serum viscosity)
(GELATIN
swelling, eff. of cortisone)

MALOVIC, Z.

Action of arbutin substance in the soil. Acta pharm. jugosl. 3
no.4:245-252 1953.

1. Zavod za farmaceutsku botaniku, Farmaceutski fakultet, Zagreb.
Priljeno 17.X.1953.

(HYDROGEN ION CONCENTRATION

*of soil, eff. of arbutin deriv.)

(ARBUTIN, eff.

*on pH in soil)

MALOVIC, Stjepan

On the road to the moon. Zemlja i svemir 7 no.2:28-33 '64.

Matcovic, Stjepan

Chend y in rocket ... Zemlja i svemir 6 no.111-
13 '63.

38951
S/181/62/004/007/033/037
B111/B104

26.2420
AUTHORS: Vavilov, V. S., Galkin, G. N., Malovetskaya, V. M., and
Plotnikov, A. F.

TITLE: Photo and thermoionization energies of deep level
radiation defects in Si

PERIODICAL: Fizika tverdogo tela, v. 4, no. 7, 1962, 1969-1970

TEXT: Experimental results of thermal and photoionization are compared
by utilizing a fact recently discovered in the annealing of p-type Si,
namely that the difference in stability of two closely adjacent levels of
the centers resulting from 1 Mev electron bombardment amounts to
 $E_v + 0.21$ ev. Fig. 1 shows that the raising of the level balances the
disappearance of charge carriers (holes) on the donor level ($E_v + 0.19$ ev).
This defect is stable even at 200°C. There are 2 figures and 1 table.

ASSOCIATION: Fizicheskiy institut im. P. N. Lebedeva AN SSSR Moskva
(Physics Institute imeni P. N. Lebedev AS USSR Moscow)

Submitted: March 1962
~~Card 1/2~~

The effect of oxygen on the ...

S/181/62/004/005/051/055
E163/B138

again, indicating the existence of trap levels. Below 0°C the life-time was reduced by biaslighting, and increased above. The temperature dependence of life-time in specimens with low oxygen content followed the dependence calculated for a recombination level with an activation energy of 0.27 ev. The temperature dependence of life-time for a specimen with an oxygen concentration of $1.5 \cdot 10^{17} \text{ cm}^{-3}$ cannot be described by the statistical theory of Shockley and Read for one recombination level. The tremendous increase with rising oxygen concentration must be due to the interaction of oxygen with impurity atoms, dislocations and defects of the vacancy - interstitial type, to form recombination centers in silicon. It appears that the resulting recombination centers have small cross sections for the capture of minority carriers. There are 2 figures. ✓

ASSOCIATION: Fizicheskiy institut im. P. N. Lebedeva AN SSSR, Moscow
(Physical Institute imeni P. N. Lebedev, AS USSR, Moscow)

SUBMITTED: February 5, 1962

Card 2/2

240700

37949

S/161/62/004/005/051/055
B163/B138

AUTHORS: Nolle, E. L., Malovetskaya, V. M., and Vavilov, V. S.
TITLE: The effect of oxygen on the life-time of minority carriers
in p-type silicon
PERIODICAL: Fizika tverdogo tela, v. 4, no. 5, 1962, 1374-1376

TEXT: Single crystals of p-type silicon were obtained by zone melting without a crucible. Very low oxygen content was achieved by zone refinement in a hydrogen atmosphere or in vacuum. In the top part of the single crystal the oxygen concentration was increased by making part of the last passage in an atmosphere of moist hydrogen. The oxygen concentration was determined from the intensity of the infrared absorption band at 9.4 microns. The life-time was measured by B. D. Kopylovskiy's phase method at a low injection level. With oxygen content increasing from $5 \cdot 10^{16} \text{ cm}^{-3}$ to $1.5 \cdot 10^{17} \text{ cm}^{-3}$ the carrier life-time increases from 1.6 to 32 microseconds. Its temperature dependence was measured between 220 and 430°K and was found to diminish with temperature. The decrease is less for specimens with higher oxygen concentrations, and below 0°C, it increased

Card 1/2

The spectrum of radiation ...

S/181/62/004/005/050/055
3163/3138

ASSOCIATION: Fizicheskiy institut im. P. N. Lebedeva AN SSSR, Moscow
(Physical Institute imeni P. N. Lebedev AS USSR, Moscow)

SUBMITTED: February 5, 1962

Card 3/3

The spectrum of radiation ...

S/181/62/004/005/050/055
B163/B136

information on the respective influence of different simultaneously existing defects. In silicon specimens drawn from quartz crucibles with an oxygen concentration of $(2-3) \cdot 10^{17} \text{ cm}^{-3}$, a donor level was found 0.27 eV above the valence band. It was rather stable and could only be annealed above 300°C . p-type silicon produced by zone melting in vacuum without a crucible with an oxygen concentration of about $5 \cdot 10^{15} \text{ cm}^{-3}$ showed mainly other defects at levels of $0.21 \pm 0.01 \text{ eV}$ above the valence band. This was determined from the position of the Fermi level when half of the defect levels were occupied. The 0.21 eV defects were much less stable than the 0.27 eV ones, and annealing was noticeable at room temperature. The temperature dependence of the hole concentration was measured between 125 and 400°C for specimens annealed between 17 and 120°C , and from this the annealing activation energy was found to be $0.72 \pm 0.04 \text{ eV}$. The 0.27 eV defects may be due to interaction between oxygen with interstitial atoms. The much slower rate of formation of the +0.27 eV defects as compared with the -0.17 eV defects is attributed to the fact that interstitial atoms have less mobility than vacancies. 0.21 eV defects were also found in A. F. Plotnikov's investigations on the spectra of stationary photoconductivity. There is 1 figure.

Card 2/3

S/181/62/004/005/050/055
B163/B138

AUTHORS: Malovetskaya, V. M., Galkin, G. N., and Vavilov, V. S.

TITLE: The spectrum of radiation defects in silicon

PERIODICAL: Fizika tverdogo tela, v. 4, no. 5, 1962, 1372-1374

TEXT: After electron irradiation of silicon local energy levels are found in the forbidden band at 0.17 ev and 0.4 ev below the conduction band (acceptor levels) and 0.27 ev above the valence band (donor level). While the two acceptor levels have been shown to correspond to an association of a vacancy with oxygen and phosphorus respectively, the nature of the donor level remained unknown. p-type silicon crystals with varying oxygen content were drawn from quartz crucibles and irradiated with 1 Mev electrons from an electrostatic generator at $17 \pm 1^\circ\text{C}$. The oxygen concentration was determined from the intensity of the infrared absorption band at 9.1 microns. The position of the energy levels and the defect concentration were determined from the temperature dependence of the charge carrier concentration measured by the Hall effect. This is better than measuring resistivity or life-time at constant temperature, as the latter give less precise

Card 1/3

67303

On the Reflection Coefficients of a Clarified
Surface of Silicon Photocells

SOV/181-1-8-8/32

families of reflection curves on silicon with a film produced by oxidation in air and with another one produced by oxidation in an oxygen atmosphere. No difference between these spectral curves could be found. SiO which forms by reduction of SiO_2 is unstable under the conditions investigated. Since the SiO_2 film is transparent for the spectral range under investigation, reduction of silicon-photocell surface reflection increases carrier pair production which in turn raises the photoelectric current. The second table contains the values of the short-circuit current of the photocells with and without film. In order to attain a successful operation of silicon solar-energy transformers it is necessary for the clarifying film to remain constant over a long period. The properties of this film practically do not vary for six months. There are 4 figures, 2 tables, and 6 references, 5 of which are Soviet.

ASSOCIATION: Fizicheskiy institut im. P. N. Lebedeva AN SSSR, Moskva
(Physics Institute imeni P. N. Lebedev of the AS USSR, Moscow)

Card 3/4

67303

SOV/181-1-8-8/32

On the Reflection Coefficients of a Clarified
Surface of Silicon Photocells

properties than the other substances mentioned above. The SiO_2 film is usually applied from the ethyl ether of octosilicic acid. Because of the lacks of this method, however, the authors prepared the SiO_2 film from oxidation of a pure silicon surface. The reflection coefficient was measured in the range 0.45-2.2 μ by means of a reflecting monochromatic illuminator with glass prism. In the range of wavelengths from 1.00 to 2.00 μ reflection coefficients were determined by direct measurement of the regular reflection for small angles of incidence. In both cases measurement was carried out with modulated light. The reflection coefficient curves taken in the spectral ranges 0.45-1.00 μ and 1.00-2.20 μ fit well to one another. The maximum error was 3% of the quantity measured. In the range 0.45-2.2 μ reflection on silicon with film is considerably less than on pure silicon. The minimum value of the reflection coefficient is 7% instead of 30 to 32%. By varying the film thickness by proper choice of the working method, the minimum may be shifted into the desired spectral range. Two figures show the

Card 2/4

9.4160 24.2600

67303

~~9(6)~~

AUTHORS:

Malovetskaya, V. M., Vavilov, V. S.,
Galkin, G. N.

SOV/181-1-8-8/32

TITLE:

On the Reflection Coefficients of a Clarified Surface of Silicon Photocells¹

PERIODICAL:

Fizika tverdogo tela, 1959, Vol 1, Nr 8, pp 1201-1204 (USSR)

ABSTRACT:

The efficiency of solar energy transformation² may be considerably increased if the surface reflection of a photocell is reduced by clarifying and if in this case surface the recombination rate is not raised. For this clarifying a film of the required optical properties is applied to the surface. Reflection is reduced by interference of the light reflected from the film and from the material under the film. The conditions for a removal of light reflection at the dielectric are given. For this clarifying of optical materials mainly oxides like TiO_2 , ZrO_2 , ThO_2 , SiO_2 , SnO_2 , etc are used. The refractive indices of these compounds are listed in a table. Various reasons explained in the paper justify the application of SiO_2 films in clarifying although these films because of their

Card 1/4

high refractive index must have somewhat worse clarifying ✓

24(4)

Akademiya nauk Ukrain'skoy SSR. Institut fiziki
Fotolektricheskaya i opticheskaya fizika v poluprovodnikakh

SOV/3140

trudy pervogo nauchnoy konferentsii po fotolektricheskoy i opticheskoy fizike v poluprovodnikakh, soderzhashchey nauchnyye i obzornyye statyi po fotolektricheskoy fizike 1957 g. (Photoelectric and Optical Phenomena in Semiconductors: Transactions of the First Conference on Semiconductors in Semiconductors...) Kiev, 1959. 403 p. 4,000 copies printed.

Additional Sponsoring Agency: Akademiya nauk SSSR, Prezidium. Komissiya po poluprovodnikam.

Ed. of Publishing House: I. V. Kisina; Techn. Ed.: A. A. Matveychuk;

Resp. Ed.: V. Ye. Lashkarev, Academician, Ukrainian SSR, Academy of Sciences.

PURPOSE: This book is intended for scientists in the field of semiconductor physics, solid state spectroscopy, and semiconductor devices. The collection will be useful to advanced students in universities and institutions of higher technical training specializing in the physics and technical application of semiconductors.

COVERAGE: The collection contains reports and information bulletins (the latter are indicated by asterisks) read at the First All-Union Conference on Optical and Photoelectric Phenomena in Semiconductors. A wide range of problems in semiconductor physics and technology are considered: photoconductivity, photoelectric effects, optical properties, photoconductivity, photoelectric properties, the actions of light and corpuscular radiations, etc. The series of thin films and semiconductor systems, Rashby, O. V. Zolotarev, K. B. Tolpyga, Application by E. I. Loms, Shchepkanov. References and discussion follow each article.

| | |
|--|----------|
| Photoelectric and Optical Phenomena (Cont.) | SOV/3140 |
| Vavilov, V. S., G. M. Galkin, and V. M. Malovetskaya. Investigation of Silicon Photoelectric Cells as Converters of Solar Radiant Energy | 345 |
| Rykin, S. M., M. V. Sirokan, and L. L. Makarovskiy. The Kinetics of Photoelectric Cells With Electron-Hole [p-n] Junctions | 360 |
| Bury, A. A., and Ye. A. Maslyuk. Germanium Photoelectric Cell of Large Area With p-n Diffused Junction | 367 |
| Kolomiets, B. P., A. O. Oleska, and S. G. Pustynich. New Types and Designs of Photoresistors and Their Characteristics (Theses) | 371 |
| Sol'kov, Ye. A., and G. A. Efremov. Photoresistors of CuSe Single Crystals With Low Relaxation Time | 373 |
| THE ACTION OF HARD AND CORPUSCULAR RADIATIONS ON SEMICONDUCTORS | |
| Card 14/16 | |

MALOVETSKAYA, U.M.

S/058/62/000/004/058/160
A058/A101

AUTHORS: Vavilov, V. S., Galkin, G. N., Malovetskaya, V. M.

TITLE: Investigation of silicon phototubes as solar energy transducers

PERIODICAL: Referativnyy zhurnal, Fizika, no. 4, 1962, 22, abstract 4G185 (V sb. "Fotoelektr. i optich. yavleniya v poluprovodnikakh". Kiev, AN USSR, 1959, 345 - 359)

TEXT: Cf. RZhFiz, 1959, no. 3, 6246.

[Abstracter's note: Complete translation]

Card 1/1

Investigation of Silicon Photoelements as Converters
of Solar Radiation

SO7/89-4-6-9/30

range of operation from 36 to 30% to 12 to 15%. The collec-
tive coefficient, on the other hand, is not reduced very
much. The result is that the short-circuit current is com-
paratively high.

4.) Silicon photoelements operate with an insolation of up to
0.5 W/cm².

There are 7 figures and 7 references, 3 of which are Soviet.

SUBMITTED: December 14, 1957

1. Silicon--Electrical properties
2. Silicon--Applications
3. Photoemission--Test results
4. Sun--Radiation

Card 2/2

AUTHORS: Vavilov, V.S., Galkin, G.N., Malovetskaya, V.M. SOV/89-4-6-9/30

TITLE: Investigation of Silicon Photoelements as Converters of Solar Radiation (Issledovaniye kremniyevykh fotoelementov kak preobrazovately solnechnogo izlucheniya)

PERIODICAL: Atomnaya energiya, 1958, Vol 4, Nr 6, pp 574-575 (USSR)

ABSTRACT: The P-N-transitions are investigated which are produced in silicon of the P-type by the thermal diffusion of phosphorus from the gaseous phase. It was found that P-silicon with P-N-transitions can be used as converter of solar radiation. These photoelements have the following properties:

- 1.) The current in the outer circle is produced by the forming of electrons and holes by the light in the N-type and in the P-type along the P-N-transitions
- 2.) The diffusion length of the electrons in the P-range diminishes after P-N transitions have been obtained to from 20 to 35 μ .
- 3.) The surface layer produced by phosphorthermodiffusion reduces the reflection coefficient within the most important

Card 1/2

Silicon Solar Batteries as Sources of the Electric Feeding of Artificial Earth Satellites 53-12-8/78

possible to attain an effective useful coefficient of $\sim 15\%$

The behavior of temperature in solar batteries: According to theory the electromotoric force developed by a silicon-photoelement must increase on the occasion of the reduction of temperature; a preliminary investigation resulted in $dV/dT = -0,00252 \text{ V/}^\circ\text{C}$. A diagram attached shows the dependence of V on temperature within the domain of from -70 up to $+90^\circ$. If the solar battery is to yield the highest possible efficiency during the flight of the earth satellite, a sufficiently low equilibrium temperature of the solar battery is necessary. Possibilities for the decrease of equilibrium temperature are given. The experimental results for silicon solar batteries obtained at conditions prevailing on the earth confirm their applicability to earth satellites. (With 6 illustrations).

Not given

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Card 4/4

53-1a-8/18

Silicon Solar Batteries as Sources of the Electric Feeding of Artificial Earth Satellites

of this method are discussed. The construction of an experimental silicon photoelement is shown in an illustration.

The Volt-ampère characteristics and the charge characteristics:

The volt-ampère characteristic of a photoelement with a surface of $0,95 \text{ cm}^2$ irradiated by sunlight is shown in a diagram. For the darkness volt-ampère characteristic in the domain of the direct current a formula is written down. The optimum load resistance R can be determined from the load characteristic as well as by computation. The authors here point to the following means of further increasing the effective coefficient of transformation:

- 1.) Increase of the effective useful coefficient α to one,
- 2.) Decrease of the resistance $R_{\text{ser}} \ll R$ which is connected in series (?).
- 3.) Transillumination (making transparent ?) of the surface at $R = 0$.
- 4.) Improvement of the shape of the load characteristic by the application of material of a lower resistance (without changing α).

The evaluation of the fourth possibility requires further experimental investigations. The simultaneous increase from α up to a value near 1 as well as the reduction of the reflection and of R_{ser} to a minimum make it

Card 3/4

Silicon Solar Batteries as Sources of the Electric Feeding of Artificial Earth Satellites

53-2a-8/28

the height V_k of which can be nearly as great as the width E_g of the forbidden zone (in the case of silicon 1.1 eV). The electrons and holes produced on the occasion of the absorption of light diffuse to P-N-transition. The potential barrier of the P-N-transition then probably "separates" the electrons and holes so that the electrons advance freely to the domain of the electronic (N)-conduction of the crystal to which they then give a negative charge. On the occasion of transition into the domain of the hole-conditioned conduction line the holes charge the crystal positively. As a result of the change of the concentrations of the charge carrier the height of the potential barrier decreases. A diagram shows the dependence of the effective coefficient of a perfect semiconductor transformer with P-N-transition upon the width of the forbidden zone. The effective coefficient at first increases considerably, attains its maximum value at a width of 1.3 eV, and then gradually decreases again. In none of the known cases was the ideal effective useful coefficient of about 22 % attained. The authors developed a method for obtaining P-N-transitions in monocrystals of P-silicon by the thermal diffusion of phosphorus from the gaseous phase. Various details

Card 2/4

MALOVETSKAYA, V. M.

AUTHOR
TITLE

53-1a-8/18
VAVILOV, V.S., MALOVETSKAYA, V.M., GALKIN, G.N., LANDSMAN, A.P.
Silicon Solar Batteries as Sources of the Electric Feeding of Artificial
Earth Satellites

PERIODICAL
ABSTRACT

(Kremniyevye solnechnyye batarei kak istochniki elektricheskogo pitaniya
iskusstvennykh sputnikov zemli. Russian)
Uspekhi Fiz. Nauk, 1957, Vol 63, Nr 1a, pp 123 - 129 (U.S.S.R.)

For artificial earth satellites it is of advantage to use solar batte-
ries in connection with buffer accumulators because they are effective
during the whole time of flight of the satellite (outside of the earth's
shadow).

The principle of the effect of a semiconductor transformer with P-N-
transitions. In the course of this process the energy of solar radia-
tion is transformed into electric energy as follows: A photon is ab-
sorbed and an "electron-hole" pair is produced. In the case of lacking
P-N-transition, however, the concentration of the electrons and holes
in the semiconductor would increase in the vicinity of the absorption
domain of light. The authors here investigated the diagram of the ener-
gy states of the electrons and holes in the semiconductor in the vicin-
ity of the artificial produced P-N-transition. This diagram then supp-
lies information concerning the mode of operation of the photoelement.
Within the domain of the P-N-transition there exists a potential barrier,

Card 1/4

CZECHOSLOVAKIA

TEPLOT, Z.; FALOVANSKY, L.; Institute of Experimental Pathology,
Medical Faculty, P.J. Safarik University (Ustav Experimentalnej
Patologie LF UPJS), Kosice.

"Recording of a Differential Pressure by Means of a Differential
Cell and Electromanometers of Various Construction."

Prague, Ceskoslovenske Fysiologie, Vol 15, No 5, Sep 66, pp
423 - 424

Abstract: The authors describe an installation which they designed for simultaneous recording of values of absolute and differential pressures. A schematic diagram of the arrangement and details of construction of individual components are given. The values are recorded electrically. It is possible to record the sum of pressures as well as their difference. 2 Figures, 2 Texts, 1 Czech reference. Submitted at the Meeting of the Slovak branch of the Czechoslovak Physiological Society at Kosice, 19 Feb 66.

VERMESOVA, E.; FEKETES, K.; MALOVECZ, I.

Influence of the preceding operations on the properties of
the covering film of buffed side box. Kozarstvi 14 no.1:
3-7 Ja'64.

1. Vyzkumny ustav kozedelny, Budapest, Madarska lidova
republika.

MALOVECZ, Istvan; VERMES, Laszlone, dr.

Effect of splits on the quality of finished leathers. Pt. 2.
Bor cipo 10 no.2:46-48 Mr '60.

1. Boripari Kutato Intezet. 2. "Bor- es Cipotechnika"
szerkeszto bizottsagi tagja (for Vermes).

MALOVECZ, Istvan; VERMES, Laszlone, Dr.

The influence of splitting on the quality of the leather.II.
Bor cipo 10 no.2:46-48 Mr '60.

1. Boripari Kutato Intezet.

MAIOVECZ, I.; VERMES, I.

Effect of splitting on the quality of leather. p.141

BCR- ES CIPOTECHNICA (Boripari Tudományos Egyesület mint a Magyar Tudományos
Egyesületek Szövetsége Tagegyesülete) Budapest, Hungary
Vol. 9, no.5, Oct.1959

Monthly List of East European Accessions (EEAI) LC., Vol. 8, no.12, Dec. 1959
Uncl.

MALOVECZ, I.

HUNGARY/Chemical Technology - Chemical Products and Their
Applications. Leather, Fur, Gelatin, Tanning
Agents. Technical Albumen.

K-7

Abs Jour : Ref Zhur - Khimiya, No 2, 1958, 6743

Author : Vago, Reti, Malovecz, ^{I.}Varga

Inst : -

Title : On the Storage and the Leaching of Smoke Tree (Variability
of Sumac Tanning Agents).

Orig Pub : Bor-es cipotechnika, 1957, 7, No 1, 1-3

Abstract : The tanning (T) content in the wood of the smoke tree
bush Rhus cotinus investigated (50-year old) was higher
than in the young sprouts or in the bark. Wood dyes
powdered hide into yellow (while dyes it bark T into
grey-brown), no precipitate with CH_2O (while bark T gives
an abundant precipitate), produces a blue coloration in
presence of FeCl_3 (while bark T give a green color).
Sumac T is less stable than T from the Chinese nut tree.

Card 1/2

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15 no. 2; 93 Mr '65.

APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R001031900034-6

BERDIKOV, V.F.; GUR'YEV, A.V.; MALOVECHKO, G.V.

Attachment to the PMT-3 apparatus for automatic loading with
a damping device. Zav. lab. 30 no.11:1398-1399 '64
(MIRA 16:1)

1. Volgogradskiy politekhnicheskii institut.

MALOVICAN, P.

The classification of seasons and months according to the temperature of the city of Osijek based on the Chapman-Conrad criterion. p. 51

YUGOSLAVIA. HIDROMETEOROLOGSKA SLUŽBA. *VEŠTAK*. Beograd, Yugoslavia.
Vol. 7, no. 1/2, Jan./June 1958

Monthly List of East European Accession (MEAL) LC, Vol. 8, no. 6
June 1959
Uncl.

MALOVCAK, P.

Tabular statistics and the graphic survey of the frequency of thunderstorms for the city of Crikvenica. p. 120.
(GLASNIK, Vol. 6 (i.e. 5) No. 3/4, 1956 (Published 1957)

SO: Monthly List of East European Accessions (EEAL) LC Vol. 6, No. 12, Dec. 1957
Uncl.

MALOVCAK, P.

Some precautionary measures against lightning. p. 103.
(GLASNIK, Vol. 6 (ie. 5) No. 3/4, 1956 (Published 1957)

SO: Monthly List of East European Accessions (EEAL) LC Vol. 6, No. 12, Dec. 1957
Uncl.

MALOVČAK, P

✓ 10.5-264

551.524.32(497.1)

Malovčak, P., Zime u Osijeku od 1900/01 do 1955/56 godine i njihova klasifikacija prema temperaturnim podacima. [Winters at Osijek from 1900/01 to 1955/56 and their classification according to temperature data.] Yugoslavia. Hidrometeorološka Služba, Vesnik, 5(1/2):45-49, Jan./June 1956. fig., table. Also his Zime u Crikvenici. . . Ibid., 6(1/2):80-87, Jan./June 1957. 2 figs., 5 tables. DWB—Average temperatures for the winter season and for each winter month are graphically presented for Osijek and Crikvenica for a 55-yr period.

two state variables of the blasting agent and its physical properties. Subject Heading: 1. Explosion waves.—A, V.

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10.5-268551.543.1:551.547.3
CR

MALOVANY, B.

Supplementary compensation and the division of corn fields into sections will speed up harvesting. p. 31. (ROLNICKÉ HLASY, Vo. 10, No. 7, July 1956, Praha, Czechoslovakia)

SO: Monthly List of East European Accessions (EEAL) LC, Vol. 6, No. 12, Dec 1957. Uncl.

SALMANOV, G. D., MAICOVANOV, A. F.

Reinforced concrete

Effect of high temperature on the resilience and plasticity of ordinary and fire-resistant concrete and on its binding quality with the metal reinforcement., Stroi. prem., no. 1, 1952.

Monthly List of Russian Accessions, Library of Congress, March 1952. Unclassified.

MAL'OVANIY, I. [Mal'ovanyi, I.] (selo Gnilitsey, Chernigovskoy oblasti);
STREL'NIKOV, Volodya (g.Aleksandriya, Kirovogradskoy oblasti);
KOSHLAK, G. [Koshlak, H.] (selo Mala Nekhvoroshcha, Poltavskoy
oblasti)

The page of our readers. Znan.ta pratsia no.7:23 J1 '60.
(MIRA 13:8)

(Cabinetwork)

ODN-100, a sprayer mounted on the DT-55 tractor, intended for the destruction of brush and young tree growth in pastures by chemical means.

OSSH-10, a dusting machine mounted on the self-propelled chassis, DSSH-14, to be used for dusting technical and vegetable crops with powdered poisons. It was designed at the All-Union Scientific Research Institute of Agricultural Machine Building.

POU-5, a machine designed at the Millerovskiy Machine-Tractor Station for the distribution of chemical poisons in grain fields.

SK2-96-1, a mixing machine for powdered poisons and poisoned bait preparations.

FPG-2,0, a machine for deep soil fumigation and the control of phylloxera in vineyards. It was designed at the Central Design Bureau.

OPS-50 and ONB, dusting machines, to be mounted on the MTZ-2 tractor. It is now being tested. (U)

OZHU-5, a combination sprayer and duster for controlling ectoparasites on animals.

PU-3,0, a universal machine for the treatment of seed.

ONB-100, a sprayer designed at the Special Design Bureau. It is similar to spraying machine ONK-100

OSh-1, a wide gauge spraying machine for the treatment of cotton and grasses with poisonous chemicals; also used to spread poisoned bait.

Machine for controlling weeds, to be attached to the KRN-2,8 cultivator. This machine was designed at the Severo-Zapadnyy Scientific-Research Agricultural Institute; it consists of two tanks attached to the sides of a tractor, a gear pump, hoses, filters, a reduction valve, and a manometer. It can be mounted on KhtZ-7 and DT-14 tractors.

OSSH-8, a spraying machine mounted on the self-propelled chassis DSSH-14. Designed at the All-Union Scientific Research Institute of Agricultural Machine Building for spraying technical, vegetable, and other crops.

Malova, Ye. S.
 "New Machines," by Ye. S. Malova, an Agronomist, Zashchita
Rasteniy ot Vreditel'ey i Bolezney, Vol 2, No 3, May/June 57,
 pp 20-22

The following new machines for spraying and dusting crops with poisonous chemicals have already been tested and recommended for production, or are in the process of being tested.

OUN-6, a spraying and dusting machine. The machine was designed by personnel of the State Special Design Bureau for spraying and dusting cotton, grain, and garden-berry crops. It consists of a double-action piston pump with a spraying capacity of 126 liters per minute, a centrifugal type fan, two tanks, and a hopper. It can be used with a spraying rod or a hose. When in use, the machine is suspended from a DT-24-3 tractor.

ONK-100, a spraying machine mounted on a KDP-35 tractor. The machine was designed at the Special Design Bureau for spraying sugar beets, grain, and garden crops. It consists of a two-cylinder piston pump, two tanks with a total capacity of 804 liters, and mechanical mixers. It can be used with a spraying rod or hose.

OPS-30, a truck mounted dusting machine designed at the All-Union Scientific Research Institute of Agricultural Machine Building for dusting of grain, industrial vegetable, and grass crops with dry poisonous chemicals. It consists of a twelve-blade fan and a hopper for the poisonous substances. The dusting mechanism consists of a rotating knee pipe and a nozzle.

MALOVA, Ye.A.

In the Scientific and Technical Council of the Ministry of Agriculture of the U.S.S.R. Zemledelie 6 no.3:92-94 Mr '58.

(MIRA 11:4)

(Rotation of crops)

BOGDANOVA, Z.V., kand. tekhn. nauk; MIROSHNICHENKO, I.P., kand. tekhn. nauk; SHEBALOV, A.I., kand. tekhn. nauk; MALOVA, V.F.

Improving the propulsive qualities of a ship by an efficient reduction of wave resistance. Trudy TSNIIMF 54:54-63 '64
(MIRA 18:1)

Efficient design of stern lines for proposed ships. Ibid.:64-71

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MALOVA, T.N.

Study of elastic-viscoplastic properties of black printing inks.
Koll.zhur.18 no.4:438-442 J1-Ag '56. (MLRA 9:10)

1.Vsesoyuznyy nauchno-issledovatel'skiy institut poligraficheskoy
promyshlennosti i tekhniki, Moskva.
(Printing ink)

work. In some of the types of carbon black and of the nature of the black used in the studies of the structure of carbon black suspensions. The data show that two forms of structure are produced in carbon black suspensions depending upon the original components. The first form of structure is characterized by the combination of carbon black particles through thick adsorption layers of high molecular components of the liquid and has a slight development of electric conductivity. The second form of structure is characterized by the combination of carbon black particles through a thinned layer of liquid of the high active centers and shows a marked growth in electric conductivity. The formation of the first form of structure is observed with the use of carbon black having on the surface of a particle adsorbed oxygen and being characterized by high adsorptive capacity and it is also observed when a binder of a high molecular component of carbon black with a low degree of surface activity and of binding with the components of the liquid is used. The data show that the structure of carbon black suspensions is also influenced by the increase of the content of carbon black in the suspension. There are about 20 references.

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Author : Malova T.N.

Title : Effect of the Form of Carbon Black and Nature of Binder
on the Structuration Nature of Carbon Black Suspensions

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Abstract : Determination of electric conductivity λ of 20% suspensions of three varieties of carbon black (Ukhtinsk gas channel, furnace gas and oxidized channel gas) in four binders -- boiled linseed oil, glyptal drying oil, machine oil S and solution of bitumen varnish in machine oil S. The determinations were made at 30 and 50° in RV-7 rotation viscosimeter, immediately after mixing and 5-90 minutes thereafter. It is shown that λ of suspensions depends no on λ of binder but on the nature of the structure formed. Depending upon the initial components two types

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- 240 -

MALOVA, T. N.

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Cand Tech Sci, Moscow Polygraphy Inst, 24 May 54. Vechernyaya Moskva,
Moscow, 13 May 54.

SO: SUM 284, 26 Nov 1954